The peculiar habit of the plant presents some interesting questions in vegetable morphology.

1st. On the supposition that the stomata are about equally distributed on both surfaces--do the leaves assume this vertical position (as Dr. Gray queries in the case of *Baptisia perfoliata*) because the stomata are thus equally distributed—or are the stomata so arranged to suit the habit of the leaf?

2nd. What is the correlation between the recumbent position of the stem and the vertical position of the leaves?

The stems are stout, and apparently quite large and strong enough to support the foliage, if growing upright,—but in that position the sessile leaves with clasping auricles could not possibly bring both surfaces to the light. There is apparently no mode by which this can be accomplished but by these two abnormal processes operative together, the stem assuming a recumbent position, and the alternate twisting of each internodal space, to bring the leaves into their double one-ranked position. The whole habit of the plant seems therefore modified by the peculiar conformation of the leaves, their mode of attachment to the stem and their functional requirements.

I may state, in conclusion, that the root (perennial) is long, fleshy, unbranched (or rarely so) tapering downwards, with few or no fibrous rootlets, from 18 inches to 2 feet or more in length, and grows in poor sandy soil where other vegetation would hardly subsist. The whole plant above ground is highly ornamental. Aside from its unique habit, which would at once attract attention, the flowers of cinereous, ashen hue, have a soft delicacy of tint, which renders them objects of beauty; whilst the symmetrically disposed, large, fleshy leaves, with pinkish translucent midribs and laterals, anastomosing in every direction, contrast with the dark green of the parenchymous tissue and make it more attractive than many of the so-called "Foliage Plants" in cultivation. Held up to the light, when the ramifying net-work of veins may be seen extending throughout the green tissue, the leaf presents an object of marvellous beauty.

Aiken, S. C.

§ 83. Fern Notes. II.

By Geo. E. Davenport.

Taenitis lanceolata, R. Br. (*Lingua Cervina*, Plum., Amer. 28, t. 40; Fil. 116, t. 132. *Pteris lanceolata*, Linn.)—I have the pleasure of announcing the discovery of this interesting fern on Old Rhodes Key, Florida, in May last, by Mr. A. H. Curtiss, the well known botanical collector.

The history of the species is interesting as showing the various views held by different authors in regard to its generic distinction.

Originally described and figured by Plumier in 1693, it was afterwards removed to *Pteris* by Linnaeus, and by him named *Pteris lanceolata*, whence its present specific name.

Later, Robert Brown (Prodromus, p. 154, in obs.) excluded it from that genus and referred it to *Taenitis*, where it was subsequently placed by Kaulfuss, and latterly retained by Hooker and Baker.

J. Smith, however, breaks up the latter genus, distributes the dif-

ferent species in his Eremobrya and Desmobrya divisions, according as their vernation is "articulated" or "adherent," and adopts the present species as the type of Fée's genus *Nevrodium* (Hist. Fil).

Presl referred it to *Paltonium*; Desvaux, to *Pteropsis*; and Moore, to *Drymoglossum*, in accordance with J. Smith's earlier views. In view of the many changes which the species has already undergone, there is no certainty that it has yet reached a definite abiding place.

There is an excellent (colored) plate of a full plant in Hooker's "Filices Exoticae," where it is figured (t. 45) as *Pteropsis lanceolata*, Desv., and of a single frond in Lowe's "Exotic Ferns" (Vol. 2, pl. lxiv), and "Les Fougéres" (p. 33, pl. 9), under the name "*Nevrodium lanceolatum*, Fée.',

For the benefit of those who may not have access to the authorities quoted, I give the following brief description of Mr. Curtiss's specimens: Rootstock creeping; stipes 1 to 2 inches long; laminae 8 to 13 inches long, $\frac{1}{2}$ to $\frac{3}{4}$ of an inch broad, tapering both ways, entire, or slightly sinuose at the margins, midnerve prominent; veins immersed, anastomosing, the exterior free, and, as well as the free veinlets within the hexagonal areoles, clubbed at their apices; fructification ante-marginal, in a continuous line near the apex.

Habitat.—Old Rhodes Key, Florida, on soft-barked trees. Discovered by A. H. Curtiss, May, 1881. Heretofore collected in St. Domingo, Jamaica, Martinique, Guadaloupe, Cuba, and not uncommon in the West Indies generally.

Mr. Curtiss's specimens are somewhat narrower than the published plates and descriptions call for, but some of Chas. Wright's Cuban specimens are quite as narrow.

Mr. Curtiss having placed in my hands all of his duplicate specimens, they will be distributed among the more prominent herbaria as far as their limited number will go.

CHEILANTHES TOMENTOSA, Link.—Mr. C. G. Pringle sends specimens of this rare fern from the Santa Catalina and Santa Rita Mountains, Arizona, and reports *Aspidium patens* and *Woodwardia radicans* from the same region.

PELLAEA GRACILIS, Hook.—Shortly after reading Mr. Rusby's interesting notes on the New Mexican ferns in the *Botanical Gazette*, in which he describes the bifurcations of *Woodsia Oregana* (var. ?), I had occasion to look over my duplicates in order to select a few specimens for a correspondent; when, almost the first thing that met my eye was a double-fronded specimen of this delicate fern (*P. gracilis*). The stipe had forked near the top into two short divisions, each bearing a perfectly-developed, fertile lamina.

Medford, Mass., July, 1881.

§ 84. New Species of North American Fungi.

By J. B. ELLIS.

VALSA TUBERCULOSA.—Perithecia 8—10, about .018′ diameter, subcircinating and buried in a stroma formed entirely of the substance of the bark, (the latter not being discolored, though rendered more compact) and surrounded by a black circumscribing line, which is very distinct and penetrates the wood beneath; ostiola short-cylin-